



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/473,103	12/28/1999	ANOOP GHANWANI	2204/150	9599

34845 7590 11/24/2003

STEUBING AND MCGUINNESS & MANARAS LLP
125 NAGOG PARK
ACTON, MA 01720

EXAMINER

PRIETO, BEATRIZ

ART UNIT	PAPER NUMBER
----------	--------------

2142

DATE MAILED: 11/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/473,103

Applicant(s)

GHANWAMI, ANOOP

Examiner

B. Prieto

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This communication is in response to request for continued examination (RCE) filed 09/17/03, claims 1-17 remain pending.

2. Quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action may be found in previous office action.

3. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Armitage et. al. (Armitage) U.S. Patent No. 6,347,303 in view of Aggarwal et. al. (Aggarwal) U.S. Patent No. 6,330,614.

Regarding claim 1, Armitage teaches a system/method related to using a Label Distribution Protocol (LDP) to establishes label switched paths, including,

mapping, associating correlating or binding a first (routing) label from an upstream neighboring device to a second (routing) label from an downstream neighboring device (col 10/lines 52-59, col 10/line 64col 11/line 5);

receiving from said upstream neighboring device a protocol message including said first label (col 3/lines 34-38):

swapping said first label with said second label in said protocol message (label swapping, adding-removing labels, col 16/lines 17-33); and

forwarding said protocol message to said downstream neighboring (next hop) device (col 3/line 34-38, col 2/lines 30-33);

however the prior art of record does not explicitly teach wherein said upstream and downstream neighboring devices are in a respective first and second autonomous systems;

Aggarwal teaches a system/method related to using a Label Distribution Protocol to establishes label switched paths (col 8/lines 1-18), teaching combining neighboring devices into autonomous systems and assigning a unique number to each system (col 11/lines 40-51), wherein a first label from an upstream neighboring device of a first autonomous system is mapped to a second label from an downstream neighboring device in a second autonomous system (Fig. 10) (col 11/lines 51-col 12/line 12, lookup mapping, col 4/lines 54-col 5/line 16);

It would have been obvious to one ordinary skilled in the art at the time the invention was made include the teachings of Aggarwal including autonomous systems using the network address assigned

number to support multiple networks interconnected via edge and core router devices, as suggested by Armitage.

Regarding claim 2, including features previously discussed and further establishing an incoming label switched path over said first autonomous system (Armitage: col 3/lines 61-col 3/line 7);

associating said first label with said incoming label switched path (Armitage: col 34-38);
establishing an outgoing label switched path over said second autonomous system (label switched path egress, col 14/lines 31-45, label switched patch egress, col 3/lines 20-33);

learning said second label associated with said downstream neighboring (next hop) device in said second autonomous system (Armitage: col 2/lines 45-60).

Regarding claim 3, using a LDP to set up said outgoing label switched path to a downstream neighboring border device (Armitage: col 3/line 50-60, setup, col 4/line 46-51, Aggarwal: group neighboring devices in autonomous system neighboring devices into autonomous systems and assigning a unique number to each system col 11/lines 40-51).

Regarding claim 4, establishing a LDP session with said downstream neighboring (next hop) device (Armitage: col 2/lines 45-60); and receiving said second label associated with said downstream neighboring (next hop) device in said second autonomous system via said LDP session (Armitage: col 2/lines 45-60).

Regarding claim 5, creating/maintaining in said label information base a label information base entry mapping said first label of from said first autonomous system to said second label in said second autonomous system (Armitage: col 10/lines 52-59).

Regarding claim 6, comprising the device for establishing a label switched path across multiple autonomous systems; the device comprising: the logic to perform the method discussed on claim 1, rejected for obviousness under U.S.C. 103, this same rationale is also applied to apparatus and logic means claims.

Regarding claim 7, comprising the device for establishing a label switched path across multiple autonomous systems, the device comprising: the logic to perform the method discussed on claims 1-2, rejected for obviousness under U.S.C. 103, this same rationale is also applied to apparatus and logic means claims.

Regarding claim 8, second label switched path establishing logic comprises LDP logic (Armitage: col 10/line 52-59).

Regarding claim 9, establish a LDP session with said downstream neighboring (next hop) device and receive said second label associated with said downstream neighboring (next hop) device in said second autonomous system via said LDP session (Armitage: col 2/line 50-60, col 10/line 52-59).

Regarding claim 10, label information base, wherein said mapping logic is operably coupled to create in said label information base a label information base entry mapping said first label from said first autonomous system to said second label in said second autonomous system (Armitage: col 10/line 52-59).

Regarding claim 11, comprising the program product comprising a computer readable medium having embodied therein a computer program for performing the method discussed on claim 1, rejected for obviousness under U.S.C. 103, this same rationale is also applied to computer program product and logic means claims.

Regarding claim 12, comprising the program product for performing the method discussed on claims 1-2, rejected for obviousness under U.S.C. 103, this same rationale is also applied to program product and logic means claims.

Regarding claim 13, substantially the same as claims 8 and 3, rejected for obviousness under U.S.C. 103, this same rationale is also applied to program product and logic means claims.

Regarding claim 14, substantially the same as claims 9 and 4, rejected for obviousness under U.S.C. 103, this same rationale is also applied to program product and logic means claims.

Regarding claim 15, substantially the same as claims 10 and 5, rejected for obviousness under U.S.C. 103, this same rationale is also applied to program product and logic means claims.

Regarding claim 16, a communication system comprising a plurality of autonomous systems (e.g. EGP 1 & EPG 2), each autonomous system having at least an edge or border device (routers linked via Net

M connecting said autonomous systems) that is shared with another autonomous system, wherein the shared border device links an incoming label switched path from an incoming autonomous system to an outgoing label switched path in an outgoing autonomous system (Aggarwal: Fig. 10, vol 7/lines 64-col 8/line 12, using LDP to map outgoing label switched path to incoming label switch path associated with downstream neighboring border device (Aggarwal: mapping outgoing label switch path to incoming switch path, col 4/lines 60-col 5/line 8, learning, col 5/lines 58-col 6/line 21, determining the egress path based, col 6/lines 49-55, Armitage: col 2/lines 50-60, col 4/lines 46-51).

Regarding claim 17, an information base comprising at least one entry mapping a first label from a first autonomous system to a second label in a second autonomous system (Armitage: col 10/lines 52-59).

4. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114.

5. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Prosecution of this application is closed by means of this final office action § 1.113, applicant may request continued examination of the application by filing a Request for Continued Examination of under 37 CFR § 1.114 and providing the corresponding fee set forth in § 1.17(e) for the submission of, but not limited to, new arguments, an information disclosure statement, an amendment to the written description, claims, drawings, or new evidence in support of patentability. Or applicant whose claims has

been twice rejected, may appeal from the decision of the administrative patent judge to the Board of Patent Appeals and Interferences under 35 U.S.C. §134.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (703) 305-0750. The Examiner can normally be reached on Monday-Friday from 6:00 to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Mark R. Powell can be reached on (703) 305-9703. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-6606. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Any response to this final action should be mailed to:

Box AF

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to the Central Fax Office:
(703) 872-9306, for Official communications and entry

Or Telephone:
(703) 306-5631 for TC 2100 Customer Service Office

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Sixth Floor (Receptionist).

(b)

B. Prieto
TC 2100
Patent Examiner
November 19, 2003

MARC D. THOMPSON
MARC THOMPSON
PRIMARY EXAMINER